

April 2021

## Leveraging Technology / Artificial Intelligence (AI) to Inform Medical Insights



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## **Presenters**



#### Moderators:

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## **Educational Objectives**

This session will provide a learning opportunity for our audience by:

- (1) Discussing new and evolving technology (artificial intelligence / machine learning and its impact on medical insights)
- (2) Identifying and discussing the different use cases for artificial intelligence / machine learning in Medical Affairs, specifically related to the collection and synthesizing of medical insights
- (3) Providing examples of systems / tools utilized to collect and synthesize medical information

# 1. Technology / Al and Medical Insights

# There is opportunity for medical insights to add value across Medical Affairs activities

#### Adding Value



The top 3 areas identified by respondents for which medical insights adds the most value were identifying unmet needs, trends from field activity, and areas for real world evidence (RWE) focus

#### How can medical insights add value?

- Enables organization to share data across a broader range of internal and external stakeholders to influence decision making
- Increased agility, as organizations are able to identify trends / knowledge gaps and action objectives
- Effectively apply a patient-centric approach by collecting and analysing HCP / patient insights to further influence strategy and actions
- Establish credibility for sharing unbiased, real-time medical data



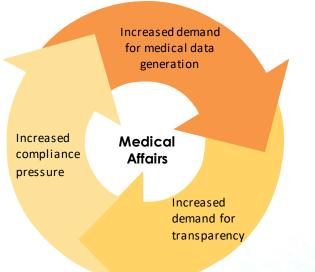
# There is also opportunity to apply technology /AI to more efficiently glean medical insights

#### **Increased efficiency**

Companies are primarily utilizing AI / machine learning for social media monitoring and KOL identification & management. The majority of respondents cited "identifying trends from field activity" as valuable insight to the MA organization, however only 22% of respondents report using AI / machine learning for field based communications monitoring.

#### **Compliance Considerations**

- More rigorous standards on HCP interactions
  avoid compromising Medical Affairs'
- independent perspective
- Evaluation of data sources to meet expectation of presenting unbiased, scientifically accurate, medical data
- Establish data governance capabilities (e.g., data privacy, infrastructure, etc.)



#### Potential Areas for Technology / AI Support

- Easily capture siloed HCP interactions to identify trends, gaps and actionable outcomes
- Integrate and centralize multiple streams of data (e.g., publications, field activity, etc.) for analysis and decision making
- Improve KOL engagements by tracking communications and trending topics (e.g., new publications, social media, etc.)



# How can Medical Affairs articulate the business case to invest in technology?

#### Implementation



Over half of respondents cited lack of funding / budgetary concerns as a constraint when adopting technology for medical insights

#### Investing in technology

- Recognizing limitations with other priorities and internal IT support, we need to better articulate the value of Medical Affairs insights and how technology can help achieve the strategy
- In the long-term, a Medical Affairs IT strategic roadmap can help identify where "competing" priorities can become complimentary through the use of technology/systems that can be leveraged across multiple activities



# 2. What does the solution look like?

## The data problem for Medical Affairs organizations

How do we make sense of all the data that Medical Affairs has access to and/or need?

Medical Affairs teams need the ability to generate real-time, datadriven, insights to drive their decisions.



Our data is a mess and I cannot get actionable insights...

Organizations would like to ingest data from multiple sources and correct/clean for consistency – then profile the data visually I need to make strategic decisions based on available data but I can't seem to do it...

Organizations would identify best probable outcomes and prescribe actions based on real data I need to discover and predict... but how??

Organizations would like to create predictive models and orchestrate them to discover and predict needed action in the organization Our reporting system is inadequate to meet the changing needs...

Organizations would like to create robust repeatable data pipelines to power reporting and visualization

# The solution - A data analytics platform that can turn data into decisions

A platform that ingests data from a multitude of sources, blends and aggregates this data into a synthetic dataset that allows for on-demand analytics, visualizations and custom reports.

#### Efficient

Economically efficient solution that allows clients to track down insights while also giving deeper links to Medical Affairs operations

#### Intuitive

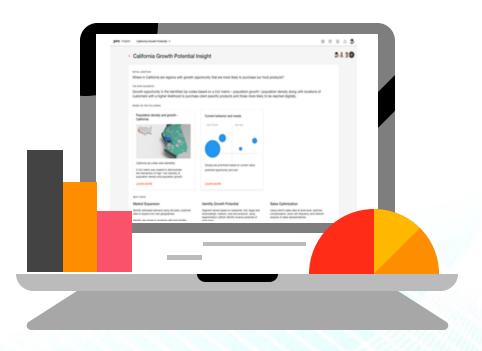
- · Clear, usable interface designed with multiple roles in mind
- Flexible combinations of myriad data sources to meet changing needs

#### Intelligent

- Technically advanced and flexible to client needs
- · Vast array of data sources and proprietary data to enrich any data environment
- Interfaces to allow client-led analysis and expansion through a variety of technologies

#### Robust

 Security is a priority: protocols for data hosting and access, options to leave client data onprem with powerful application processing in the cloud



## **Building blocks of this solution**

#### **INGEST & CLEANSE**



#### Makes raw data usable in an instant

A platform that provides a more efficient way to set up data for success. It consolidates all of the ingestion activities in one place.

#### **PREPARE & ENRICH**

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Weaves an intelligent data fabric A platform with which organizations can fortify their data with robust catalog of trusted regulatory and compliance-ready sources.

#### **ANALYZE & ORCHESTRATE**

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The power of analytics in a single place

A platform that interrogates data using a suite of analytics programming frameworks (R, Python, Apache Spark etc) and leading analytics tools such as SAS, Pentaho, SnapLogic, Talend etc)

#### **VISUALIZE & PUBLISH**

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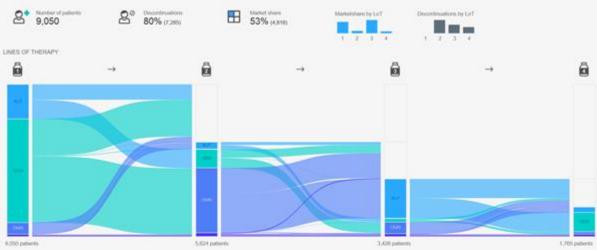
#### A new standard for surfacing insights

A platform that empowers organizations to see past the noise of data to true insightful signals with clear, easy-to-understand visualization models based on actual use cases.

## Sample visual outputs



Effective and holistic understanding of key pharma stakeholders through the care continuum Ability to navigate across multiple therapeutic pathways





# Thank you. Questions?